

AMENDMENTS TO THE CLAIMS

1 through 14. (Canceled)

15. (Previously Presented) The inertial sensor according to claim 22 wherein said signal conditioning circuits are integral with said silicon wafer and said angular rate sensor.

16. (Previously Presented) The inertial sensor according to claim 15 including a device for combining signals connected to said signal conditioning circuits, said device operable to combine the signals generated by said plurality of signal conditioning circuits into a single output signal.

17. (Previously Presented) The inertial sensor according to claim 22 wherein said signal conditioning circuits are located remotely from said silicon wafer and said angular rate sensor.

18 through 20. (Cancelled)

21. (Previously Presented) The inertial sensor according to claim 22 wherein said signal conditioning circuits are included within an Application Specific Integrated Circuit.

22. (Previously Presented) An inertial sensor adapted to be attached to a body comprising:

a base member, said base member being formed from a silicon wafer;

a single angular rate sensor disposed on said base member, said angular rate sensor operable to sense a change in an angular velocity of said body; and

a plurality of signal conditioning circuits connected to said angular rate sensor, with a first one of said signal conditioning circuits being calibrated to sense a first range

of angular velocity change and a second one of said signal conditioning circuits being calibrated to sense a second range of angular velocity change, said second range of angular velocity change being different from said first range of angular velocity change, said signal conditioning circuits adapted to be connected to at least one control system, said signal conditioning circuits operable to generate an electrical signal that is a function of said change in said angular velocity of said body.

23 through 25. (Canceled)

26. (Previously Presented) The inertial sensor according to claim 22 including a device for combining signals connected to said signal conditioning circuits, said device operable to combine the signals generated by said plurality of signal conditioning circuits into a single output signal.

27. (New) The inertial sensor according to claim 15 wherein said signal conditioning circuits are included within an Application Specific Integrated Circuit.

28. (New) The inertial sensor according to claim 17 wherein said signal conditioning circuits are included within an Application Specific Integrated Circuit.

29. (New) The inertial sensor according to claim 17 including a device for combining signals connected to said signal conditioning circuits, said device operable to combine the signals generated by said plurality of signal conditioning circuits into a single output signal.